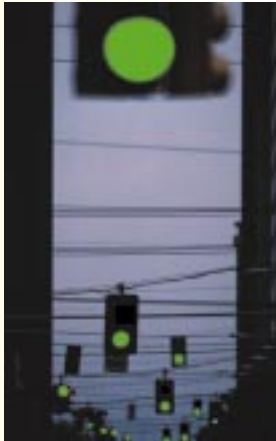


# SETTING STANDARDS FOR THE FUTURE



## Standards Are a Part of Everyday Living

We all enjoy the benefits of standards. For example, standards for stereo systems allow us to purchase different brand name components that work together. Standards in the computer industry provide us with many compatible options and capabilities in both hardware and software. Communications standards allow us to exchange calls between the many types of telephones now available.



Standards specify how various technologies, products, and components interconnect and interact within a system framework. In short, they describe how things are designed, how they perform, and how they fit together. For product manufacturers and consumers, standards bring convenience, compatibility, quality, savings, and more competition and innovation for the many products and services we all use every day.

## Standards for ITS

Intelligent Transportation Systems (ITS) are the application of advanced computer, electronics, and communications technologies to increase the safety and efficiency of surface transportation. ITS depend on the ability to integrate many advanced technologies; standards are essential in making this possible. With ITS standards, transportation agencies can implement systems to cost-effectively exchange pertinent data and accommodate equipment replacements, system upgrades, and system expansions. The traveling public can benefit from ITS standards through products that will function

**U.S. Department of Transportation  
National ITS Standards Program**

consistently and reliably anywhere in the country.

ITS standards contribute to a safer and more efficient transportation system, facilitate national and regional interoperability, and promote the creation of an innovative and competitive market for transportation services and products.

## Together for the Vision of ITS

The National ITS Architecture is a framework that defines how transportation system components interconnect. It is

within the framework of the National ITS Architecture that ITS standards needs are identified.

ITS standards and the National ITS Architecture are essential for realizing the vision of a seamless, intermodal, and efficient national intelligent transportation system.



## Making ITS Standards a Reality

The overall goal of the U.S. Department of Transportation's (U.S. DOT) ITS Standards Program is to promote the widespread deployment of integrated ITS through robust, non-proprietary standards. The U.S. DOT is using a five-track approach to develop ITS standards and to meet ITS deployment goals. Together with many partners and other stakeholders in the ITS community, the U.S. DOT is conducting a comprehensive, five-part program of activities in standards development, testing, outreach and education, technical assistance, and policy support.

## 1. Development

The U.S. DOT is committed to the accelerated development of ITS standards in cooperation with existing standards development organizations (SDOs). The SDOs develop ITS standards through a consensus-based volunteer process. Currently, activities are underway leading to the development of about 100 ITS standards that address communications interfaces in the National ITS Architecture. As the National ITS Architecture continues to expand into such areas as highway-rail intersections, data services, emergency services, and rural ITS applications, the need for additional ITS standards will be identified.

## 2. Testing

A comprehensive program has begun to test ITS standards that are emerging from the standards development process. The primary purposes of the ITS standards testing program are to investigate the operation, correctness and completeness of the standards, and to "prove" the standards in realistic settings. As an important measure to encourage acceptance and use of ITS standards, testing will provide timely and meaningful information on standards readiness to the ITS community. The testing program will leverage ongoing and planned ITS field deployments.

## 3. Outreach and Education

To promote the awareness and use of ITS standards, the ITS Standards Program includes a multi-faceted outreach and education program for public- and private-



sector stakeholders involved in ITS deployment. The program includes non-technical and technical outreach, and training.

Non-technical outreach is aimed at communicating the rationale and benefits for using ITS standards to transportation stakeholders. This outreach will also keep stakeholders aware of the ITS Standards Program and related policy activities.

Technical outreach will educate the community on the content of standards, the status of their availability, the application of specific standards, and issues related to standards implementation. Dissemination of the technical and non-technical information will be through several outreach products that have been identified for delivery to stakeholders. Products include:

- Standards Fact Sheets
- Implementation Guides
- Procurement Specification Guides
- Standards Test Reports
- Cases Studies and Lessons Learned Reports
- Deployment Contact Information
- Standards Newsletter

In addition to the above products, other means of outreach to stakeholders will include presentations and exhibits at various meetings and conferences.

Finally, instructional training on ITS standards will be conducted through courses, workshops, and other formats as appropriate.

Outreach products and training information will be available through ITS

Web resources of the U.S. DOT including:

- The ITS standards website:  
**<http://www.its.dot.gov/standard/standard.htm>**
- The Electronic Document Library (EDL): **<http://www.its.dot.gov/welcome.htm>**
- ITS Cooperative Deployment Network (ICDN): **<http://www.nawgits.com/jpo/icdn.html>**

## 4. Technical Assistance

To assist public-sector agencies with ITS standards-related deployments, the U.S. DOT will provide technical support,

including in-depth assistance with the detailed mechanics of the standards. The U.S. DOT will target assistance in areas directly related to standards implementation, such as system planning, design, procurement, installation, and product and system acceptance. In addition to its own staff resources, the U.S. DOT will utilize its Peer-to-Peer Program for technical assistance on ITS standards. The Peer-to-Peer Program provides on-demand support through an established network of experts.

The Peer-to-Peer Program can be contacted by calling 1-888-700-PEER.



## 5. Policy Support

The Transportation Efficiency Act for the 21st Century (TEA-21) establishes two distinct areas of policy support: critical ITS standards and conformity to ITS standards.

"Critical" standards are standards that ensure national interoperability or are

needed for the development of other standards. The U.S. DOT has identified seventeen ITS standards as critical standards.

"Conformity" to ITS standards applies to standards that are formally adopted by the U.S. DOT. Formal adoption of ITS standards will occur through the Federal rule-making process. The rule-making process will invite public comment through a notice of proposed Federal action before any requirement is imposed. Standards adopted by the U.S. DOT will be used in applicable transportation projects utilizing Federal funds from the Highway Trust Fund. The U.S. DOT will work with stakeholders to ensure that standards proposed for adoption are "proven" in actual use and that standardized products and systems are available.

## How You Can Become Involved

The success of the ITS Standards Program requires the involvement of many stakeholders in both the public and private sectors. The



U.S. DOT invites stakeholders in the ITS community to participate in standards program activities. There are many ways to become involved, including participating on standards development committees, getting involved in participating professional and trade organizations, nominating your product or deployment site for testing, and offering your ideas, feedback, and services.

To further explore ITS Standards Program activities, visit the U.S. DOT Standards web page at: **<http://www.its.dot.gov/standard/standard.htm>**

Or, contact the ITS Joint Program Office, U.S. Department of Transportation, at the address on the back cover.

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